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a test platform including a suspension assembly coupled to an actuator, said actuator operable to position said suspension assembly above said disk to access said disk for said test operation, said suspension assembly including an interconnect module coupled between a suspension having a connecting end and electrically conducting paths and a microactuator having a connecting end, the interconnect module coupling the connecting ends of the suspension and the microactuator and routing data signals between said electrically conducting paths and said microactuator, such that the connecting end of the suspension is positioned in a first direction and the connecting end of the microactuator is positioned in a second direction.

REMARKS

Claims 14-43 were presented for examination by the Examiner. The Examiner objected to claims 14, 17, 21, 24, 27, 31, and 34, rejected claims 14-17, 21-30, and 38-41 under 35 U.S.C. §102(e), and rejected claims 18-20, 31-37, 42, and 43 under 35 U.S.C. §103(a). Although, it appears from the above-identified Office Action that the Examiner has objected to claim 17, Applicants believe that Examiner intended to object to claim 18 since the phrase under objection by the Examiner appears in claim 18 and not 17. Applicants respectfully traverse the rejection of the claims of the present invention for the following reasons.

Amendment to the Claims

Claims 14, 18, 21, 24, 27, 31, and 34 have been amended to overcome the Examiner's objection. Applicants submit that no new matter has been introduced by the amendments. Applicants further submit that the above amendments were not made for patentability purposes.

Objection to claims 14, 18, 21, 24, 27, 31, and 34

The Examiner objected to claims 14, 18, 21, 24, 27, 31, and 34 and kindly suggested a solution. Applicants submit that the amendments to the objected claims overcome the objection. In fact Applicants amended the objected claims according to the Examiner's suggestion and thank the Examiner for his suggestion.

Rejection of the claims under 35 U.S.C. §102

Claims 14-17, 21-30, and 38-41 were rejected by the Examiner under section 102(e) as being anticipated by Arya et al. (U.S. Patent No. 6,055,132) ("Arya"). Applicants respectfully traverse the rejection of the claims under section 102(e) for the following reasons.

Each of the amended independent claims 14, 24, and 27 claims, among other elements, a slider/head assembly having a connecting end, a suspension having a connecting end and electrically conducting paths, and an interconnect module that couples the connecting ends of the suspension and slider head assembly. The interconnect module is capable of coupling the connecting ends of the suspension and the slider/head assembly while the connecting end of the suspension faces a first direction and the connecting end of the slider/head faces a second direction.

Claim 21 claims, among other elements, a first device having a connecting end, a second device having a connecting end and electrically conducting paths, and an interconnect module that couples the connecting ends of the first and second devices. The interconnect module is capable of coupling the connecting ends of the two devices while the connecting end of the first device faces a first direction and the connecting end of the second device faces a second direction.

In addition to coupling the connecting ends of the slider/head and the suspension, as claimed in claims 14, 24, and 27, and the connecting ends of the first and second devices in claim 21, the interconnect module routes one or more signals between the claimed electrically conducting paths and the slider/head or the first device, respectively.

In rejecting claims 14, 21, 24, and 27, the Examiner relied on the suspension assembly of Figure 3 in Arya. The Examiner pointed to the element 104 in Fig. 3 of Arya and equated that with the interconnect module of claims 14, 21, 24, and 27.

As it is understood by the Applicants, element 104 in Fig. 3 of Arya is a microactuator. (See column 5, line 104) The microactuator 104 is used "to provide a fine positioning of the transducer while the actuator provides a coarse positioning." (Column 5, lines 39-40) Typically, application of electric current would cause the microactuator to actuate and cause a fine movement of the slider/head. It is not provided nor is it intended to route one or more signals between two elements.

In addition, assuming for the sake of argument only, that element 104 is an interconnect module. As far as Applicants understand Arya, it does not teach the routing of one or more signals by element 104. In fact, element 104 is proposed to provide a fine positioning of the transducer and is not provided to route one or more signals between two elements.

In view of the above, Applicants submit that all the elements of claims 14, 21, 24, and 27 are not taught by the cited reference, Arya. Accordingly, Arya does not anticipate the present invention as claimed in the amended independent claims 14, 21, 24, and 27.

Claims 15-17 and 38 depend on the amended independent claim 14 and include the limitations of the base claim. Thus, the argument provided above applies equally to the dependent claims 15-17 and 38. Accordingly, Arya does not anticipate the present invention as claimed in claims 15-17 and 38.

Claims 22, 23, and 40 depend on the amended independent claim 21 and include the limitations of the base claim. Thus, the argument provided above applies equally to the dependent claims 22, 23, and 40. Accordingly, Arya does not anticipate the present invention as claimed in claims 22, 23, and 40.

Claims 25 and 26 depend on the amended independent claim 24 and include the limitations of the base claim. Thus, the argument provided above applies equally to the dependent claims 25 and 26. Accordingly, Arya does not anticipate the present invention as claimed in claims 25 and 26.

Claims 28-30 and 41 depend on the amended independent claim 27 and include the limitations of the base claim. Thus, the argument provided above applies equally to the dependent claims 28-30 and 41. Accordingly, Arya does not anticipate the present invention as claimed in claims 28-30 and 41.

The dependent claim 31 depends on the amended independent claim 18. The independent claim 18 includes, among other elements, the elements of the amended independent claim 14. In addition, the claimed interconnect module of claim 18 routes one or more signals between the microactuator and the electrically conducting paths.

Applicants submit that the argument provided with respect to the independent claim 14 equally applies to the independent claim 18, and hence to the dependent claim 39. Accordingly, Applicants submit that the cited reference, Arya, fails to teach all the

elements of the dependent claim 39; and hence it does not anticipate the dependent claim 39.

Rejection of the claims under 35 U.S.C. §103

Claims 18-20, 31-37, 42, and 43 have been rejected by the Examiner under 35 U.S.C. §103(a) as being unpatentable over Arya in view of Koshikawa et al. (U.S. Patent 6,181,531 B1) ("Koshikawa").

Applicants respectfully traverse the rejection of claims 18-20, 31-37, 42, and 43 for the following reasons.

In rejecting the amended independent claim 18, the Examiner relied on the teachings of Arya and Koshikawa. The Examiner correctly stated that Arya fails to teach the interconnect module of claim 18. The Examiner then relied on Koshikawa to allegedly provide the missing interconnect module in the suspension assembly of figure 3 in Arya. Applicants respectfully submit that such reading of Koshikawa is not supported by the reference itself.

As it is understood by the Applicants, Koshikawa is directed toward a "thin film magnetic head slider of high performance and low cost." (Column 1, lines 63-64) The thin film magnetic head of Koshikawa is neither intended nor taught to be used as interconnect module that routes one or more signals and enables the coupling of the connecting ends of two devices, such as a slider/head assembly or a microactuator and a suspension, where the connecting end of one device faces one direction and the connecting end of the second device faces a second direction.

The Examiner specifically pointed to the structure shown in Fig. 6b. As it is understood by the Applicants, the structure of Fig 6b shows an incomplete thin film magnetic head prior to the steps of forming a conductive film and forming the terminal pads and the slider body. (Refer to column 6, lines 40-44) The incomplete structure of Fig. 6b includes a recording and reproducing head element that is attached to terminals 42 by lead wire 43. (Refer to column 6, lines 36-40)

Applicants fail to see how the examiner is proposing to use the structure of Fig. 6b as the interconnect module of the present invention. As it is shown in Fig. 6b, the pads 42 are all attached to the recording and reproducing head element 41 via lead wires

43. The pads 42 are only connected to the recording and reproducing head 41. They are not intended to route signals between two devices as the interconnect module of the present invention. A completed thin film head according to Koshikawa would be used to record data on and reproduce data from a magnetic medium. This totally different from an interconnect module as taught and claimed by the present invention.

In view of the above, Applicants submit that the structure of Fig. 6b is not intended nor is it taught to be an interconnect module as taught and claimed in the present invention. Accordingly, the proposed combination by the Examiner is not supported by the teachings of the two references. The only logical combination of the teachings of the two references is the possible use of the proposed thin film head slider of Koshikawa as the transducer 100 in the proposed structure of Arya as shown in Fig. 3. This resulting combination lacks all the elements of the present invention as claimed in the amended independent claim 18.

In view of the above, Applicants submit that the proposed combination of Arya and Koshikawa does not render obvious the present invention as claimed in the amended independent claim 18.

Claims 19 and 20 depend on the amended independent claim 18 and include all the limitations of the base claim. Thus, the above argument applies equally to the dependent claims 19 and 20. Accordingly, Applicants submit that the proposed combination of Arya and Koshikawa does not render obvious the present invention as claimed in the dependent claims 19 and 20.

The above argument provided with respect to the amended independent claim 18 applies equally to the amended independent claim 31 and claims 32-33 and 42 that depend on the base claim 31. Also, the same argument applies to the amended independent claim 34 and its dependent claims 35-37 and 43.

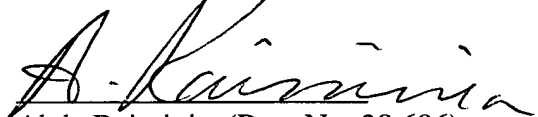
Accordingly, Applicants submit that the proposed combination of Arya and Koshikawa does not render obvious the present invention as claimed in claims 31-37, 42 and 43.

CONCLUSION

Claims 14-43 remain in this application for reconsideration by the Examiner in view of the above amendments and remarks. The Applicants respectfully request such reconsideration. Applicants submit that the remaining claims are now in condition for allowance. The speedy allowance of the remaining claim is respectfully requested.

If the Examiner believes that a telephone conversation with the undersigned would expedite the allowance of the remaining claims of the present application, the Examiner is invited to call the undersigned at the number listed below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "A. Raissinia", is written over a horizontal line.

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

14. **(Three Times Amended)** A suspension assembly comprising:
a slider/head assembly having a connecting end;
a suspension having a connecting end and electrically conducting paths; and
an interconnect module coupling the connecting ends of the suspension and the
slider/head assembly to route one or more data signals between said electrically
conducting paths and said slider/head assembly, such that the connecting end of the
suspension [being] is positioned in a first direction and the connecting end of the
slider/head [being] is positioned in a second direction.
18. **(Three Times Amended)** A suspension assembly comprising:
a slider/head assembly;
a suspension having a connecting end and electrically conducting paths;
a microactuator having a connecting end ; and
an interconnect module coupling the connecting ends of the suspension and the
microactuator to route one or more data signals between said electrically conducting
paths and said microactuator, such that the connecting end of the suspension [being] is
positioned in a first direction and the connecting end of the microactuator [being] is
positioned in a second direction.
21. **(Three Times Amended)** An assembly, comprising:
a first device having a connecting end;
a second device having a connecting end and electrically conducting paths; and
an interconnect device coupling the connecting ends of the first and second
devices to route one or more signals between said first device and said electrically
conducting paths, such that the connecting end of the first device [being] is positioned in
a first direction and the connecting end of the second device [being] is positioned in a
second direction.

24. **(Three Times Amended)** A storage device, comprising:
a disk;
a spindle motor positioned to support and rotate said disk;
a suspension assembly including an interconnect module coupled between a slider/head assembly having a connecting end and a suspension, said suspension having a connecting end and electrically conducting paths, and said interconnect module coupling the connecting ends of the slider/head assembly and the suspension and routing one or more data signals between said electrically conducting paths and said slider/head assembly, such that the connecting end of the suspension [being] is positioned in a first direction and the connecting end of the slider/head assembly [being] is positioned in a second direction; and
an actuator coupled to said suspension assembly and operable to position said suspension assembly above said disk to access said disk for reading and/or writing operations.

27. **(Three Times Amended)** A test system for disks, comprising:
a spindle motor for rotating a disk during a test operation; and
a test platform including a suspension assembly coupled to an actuator, said actuator operable to position said suspension assembly above said disk to access said disk for said test operation, said suspension assembly including an interconnect module coupled between a slider/head assembly having a connecting end and a suspension, said suspension having a connecting end and electrically conducting paths, and said interconnect module coupling the connecting ends of the slider/head assembly and the suspension and routing one or more data signals between said electrically conducting paths and said slider/head assembly, such that the connecting end of the suspension [being] is positioned in a first direction and the connecting end of the slider/head assembly [being] is positioned in a second direction.

31. **(Three Times Amended)** A storage device, comprising:
a disk;
a spindle motor positioned to support and rotate said disk;
a suspension assembly including an interconnect module coupled between a suspension having a connecting end and electrically conducting paths and a microactuator having a connecting end, the interconnect module coupling the connecting ends of the suspension and the microactuator and routing data signals between said electrically conducting paths and said microactuator, such that the connecting end of the suspension [being] is positioned in a first direction and the connecting end of the microactuator [being] is positioned in a second direction; and
an actuator coupled to said suspension assembly and operable to position said suspension assembly above said disk to access said disk for reading and/or writing operations.

34. **(Three Times Amended)** A test system for disks, comprising:
a spindle motor for rotating a disk during a test operation; and
a test platform including a suspension assembly coupled to an actuator, said actuator operable to position said suspension assembly above said disk to access said disk for said test operation, said suspension assembly including an interconnect module coupled between a suspension having a connecting end and electrically conducting paths and a microactuator having a connecting end, the interconnect module coupling the connecting ends of the suspension and the microactuator and routing data signals between said electrically conducting paths and said microactuator, such that the connecting end of the suspension [being] is positioned in a first direction and the connecting end of the microactuator [being] is positioned in a second direction.